



**HAMPSHIRE**  
CHEMICAL CORPORATION

55 Hayden Avenue  
Lexington, MA, USA 02173

# MATERIAL SAFETY DATA

EMERGENCY TELEPHONE NO.: 603 888-2320

Complies with U.S. Hazard  
Communication Standard and  
Canadian WHMIS Regulations

## SECTION ONE - PRODUCT DESCRIPTION

IDENTITY: **HAMP-ENE® 100S** [100.01-.03, .06-.10, .12,.131 Date: 4-5-93

CHEMICAL DESCRIPTION: Tetrasodium ethylenediaminetetraacetate, water solution.

SYNONYMS: EDTA Na4; ethylenediaminetetraacetic acid, tetrasodium salt

PRODUCT CAS NUMBER: 64-02-8

GENERAL PRODUCT USE: Chelating  
agent.

## SECTION TWO - INGREDIENTS.

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Percent Present w/w)</u>
Water		53-61
EDTA Na4	64-02-8	38-46
Sodium hydroxide	1310-73-2	1-2

N.A.= Not applicable

N.D.= Not determined (not available)

## SECTION THREE - PHYSICAL DATA

APPEARANCE AND ODOR: Pale yellow liquid with slight ammonia odor.

BOILING POINT: About same as water

MELTING POINT: N.A.

VAPOR PRESSURE: About same as water

VAPOR DENSITY: About same as water

WATER SOLUBILITY: Miscible.

OCTANOL/WATER PARTITION COEFFICIENT: N.D.

SPECIFIC GRAVITY: 1.27-1.32

% VOLATILE BY WT.: 53-61%

EVAPORATION RATE: About same as water

pH of 1% solution: 11-12 (.10; 10-12.5)

## SECTION FOUR - FIRE FIGHTING DATA

FLASH POINT: Aqueous system.

LOWER EXPLOSIVE LIMIT: N.D.

AUTO IGNITION TEMPERATURE: N.D.

METHOD: N.D.

UPPER EXPLOSIVE LIMIT: N.D.

EXTINGUISHING MEDIA: Aqueous product. For fires involving dried material use water, carbon dioxide, dry chemicals, or foam.

The information contained herein is based upon data considered true and accurate, and Hampshire Chemical Corp. makes no warranties, express or implied, as to the accuracy, completeness or reliability of the information contained herein. The information is intended for use by persons with professional knowledge of the subject matter or with access to such persons. Persons receiving this information are urged to conduct their own assessment of the suitability and completeness of the information for their particular application.

**THERMAL DECOMPOSITION PRODUCTS:** Burning of dried material may release carbon dioxide, carbon monoxide and nitrogen oxides.

**SPECIAL FIRE FIGHTING PROCEDURES:** If product is present in fire and threat of decomposition exists wear self contained breathing apparatus with full face piece.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Readily generates hydrogen gas in contact with aluminum. May slowly generate hydrogen gas in contact with zinc.

---

## SECTION FIVE - HEALTH & FIRST AID DATA

**ODOR THRESHOLDS:** None.

**PRIMARY ROUTE(S) OF ENTRY:** Eye contact. Skin contact. Inhalation of mist.

**HEALTH HAZARDS (ACUTE AND CHRONIC):** Although pH alone is not a precise indicator of irritation potential, this product should be handled as possibly irritating to the eyes based on pH. Classified as irritating to skin based on animal studies. Inhalation of mist may be irritating to the respiratory tract. Sodium salts of EDTA have been reported to cause birth defects in animals at very high doses not expected in occupational exposures. These effects were observed only at dose levels that were toxic to the mother.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** Eyes - tearing, stinging, redness. Skin - stinging, redness, some swelling possible. Coughing, soreness in respiratory tract, chest tightness, difficulty breathing.

**CARCINOGENICITY:** U.S. - According to definitions and limitations of the U.S. Hazard Communication Standard, none of the ingredients are listed on the NTP, IARC, or OSHA carcinogen lists. Canada - According to definitions and limitations of the Canadian WHMIS regulations, none of the ingredients are listed on the IARC or ACGIH carcinogen lists.

**CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:** Persons with preexisting skin disorders may be more susceptible to irritating effects. Persons with pre-existing lung disorders may be more susceptible to irritating effects.

**SYNERGISTIC EFFECTS** - Effects that are more serious for simultaneous exposure to two or more chemicals than for separate exposures to the individual chemicals: None known.

## EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Immediately flush with large quantities of water for at least 15 minutes while holding the eyelids open. Do not attempt to neutralize with chemical agents. Contact a physician immediately.

Skin Contact: Immediately remove contaminated clothing and flush area with large quantities of water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Contact a physician if irritation develops.

Ingestion: If patient conscious, give several glasses of water for dilution effect and contact a physician. Do not induce vomiting. Do not give an unconscious person anything by mouth.

Inhalation: Remove from contaminated atmosphere. If breathing has stopped, give artificial respiration then oxygen if needed. Contact a physician.

Note to Physician: None.

---

## SECTION SIX - REACTIVITY DATA

**STABILITY:** Stable.

**CONDITIONS TO AVOID:** N.A.

SENSITIVITY TO STATIC DISCHARGE: None.

REACTIVITY WITH WATER: None.

INCOMPATIBILITY WITH OTHER MATERIALS: Aluminum. Zinc. Corrosive to metals.

REACTION DECOMPOSITION PRODUCTS: Readily generates hydrogen gas in contact with aluminum. May slowly generate hydrogen gas in contact with zinc.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID UNCONTROLLED POLYMERIZATION: N.A.

---

## SECTION SEVEN - SPILL & DISPOSAL PROCEDURES

SPILL AND RELEASE PROCEDURES: Evacuate area of nonessential personnel. Ventilate area. Use protective equipment and respiratory protection stated in Section Eight. Contain liquid spills using a barrier of inert material such as sand or by diking the area. Absorb spilled liquids using an inert material. Scoop or shovel absorbed material or spilled solids into containers. Avoid creating a dust during transfer of solids. Prevent spilled product or contaminated wash water from entering drinking water supplies or streams.

WASTE DISPOSAL PROCEDURES: Check pH of product. If pH is less than 12.5, the waste product is not a federal hazardous waste according to U.S. EPA regulation 40 CFR 261. If pH is 12.5 or greater, classify and label in accordance with 40 CFR 261 as follows:

EPA Hazardous Code: Corrosive

EPA Hazardous Waste Number: D002

---

## SECTION EIGHT - SPECIAL PROTECTION INFORMATION

VENTILATION: Typical mechanical or general industrial systems are sufficient for simple mixing. The need for hoods or local exhausts should be considered for other commercial operations.

PROTECTIVE EQUIPMENT: Goggles, impervious gloves, and impervious clothing to prevent skin contact.

RESPIRATORY PROTECTION: If a mist is present, use an organic vapor respirator with a prefilter for mist.

---

## SECTION NINE - SPECIAL PRECAUTIONS

WORK/HYGIENIC PRACTICES: Wash thoroughly after handling. Wash contaminated clothes before re-use. Launder work clothes separately from family clothes. Check protective clothing, particularly impervious gloves, for leaks before use.

HANDLING AND STORAGE PRECAUTIONS: Store in cool, dry, and well ventilated area. Keep containers closed. Do not enter storage area unless area is adequately ventilated. Use only stainless steel, polyethylene, or plastic lined containers for handling and storage.

---

## SECTION TEN - REGULATORY AND OTHER INFORMATION

### INTERNATIONAL INVENTORY LISTINGS:

Components in this product are listed on the  
U.S. TSCA Inventory  
Canadian Domestic Substances List  
European EINECS Listing (2005739)  
Australian AICS

### U.S. REGULATORY INFORMATION:

SARA CLASSIFICATION(S): Immediate (acute) health hazard.

Ingredients present in products that may require reporting under Section 313 of SARA Title III as defined in 40 CFR 372: None

CLEAN AIR ACT, OZONE DEPLETING SUBSTANCES: This product does not contain nor was it manufactured with Class I or Class II ozone depleting substances as defined by the Clean Air Act Amendments of 1990.

FORMALDEHYDE STANDARD: Contains formaldehyde but air concentrations are not expected to exceed 0.1 ppm under reasonably foreseeable conditions of use. It is recommended that users conduct industrial hygiene testing.

SCHEDULE B NUMBER: 2922.49.6000 (1)

HMIS RATINGS: Health - 2, Flammability -1, Reactivity -1, Personal Protective Equipment - G

CANADIAN SHIPPING INFORMATION: Corrosive liquid NOS (contains sodium hydroxide) Class 8, UN1760, PG III

CANADIAN HAZARD CLASS AND DIVISION: Class D Division 2B, Class E (Corrosive to metals but not to skin.)

EXPOSURE LIMITS: (N.E. . None Established)

<u>Ingredient</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>NIOSH IDLH*</u>
Sodium hydroxide	2 mg/m <sup>3</sup> Ceiling	2 mg/m <sup>3</sup> Ceiling	250 mg/m <sup>3</sup>

\* Immediately Dangerous to Life or Health

To order a new MSDS call:  
617-861-9700

Prepared by Donna A. Chadwick  
Hampshire Chemical Corp., Regulatory Services  
Department  
617-861-9700, X-2575